



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,350	01/28/2005	Hermann Bogert	30361 USA	8342
23307	7590	05/02/2007	EXAMINER	
SYNNESTVEDT & LECHNER, LLP			WILSON, DEMARIS R	
1101 MARKET STREET				
26TH FLOOR			ART UNIT	PAPER NUMBER
PHILADELPHIA, PA 19107-2950			1731	
			MAIL DATE	DELIVERY MODE
			05/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/523,350	BOGERT ET AL.
Examiner	Art Unit	
DeMaris R. Wilson	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 13 March 2006.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 16-46 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 16-46 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 28 January 2005 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) All    b) Some \* c) None of:
      1. Certified copies of the priority documents have been received.
      2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
      3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 1/28/2005
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 16-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bolin <US 5411564> in view of Mann et al <US 6170294>. Regarding claims 16 and 40, Bolin discloses a plunger mechanism for a glassware forming machine comprising the following:

a) a fixed housing (the enclosure of 214 and 216) mountable (bracket 226) on a glassware forming machine (see Figure 2)

b) a movable housing (the enclosure of 64 and 66) mounted on said fixed housing (see Figure 2)

c) a plunger holder (222) movably mounted on the movable housing

d) a drive unit (see enclosure of bracket 226) mounted on the movable housing including the following:

1) a threaded spindle (223/224) fixedly (means of a threaded block (234)) attached to said plunger holder (222) (see Figure 2)

2) a nut (234), or threaded block, engaged with said spindle and coupled to a driven shaft (250) (see Figure 2)

- 3) the drive shaft (250) having a first bevel gear (246) and second bevel gear (248) mounted on the drive shaft (250) (see Figure 2)
- 4) a rotating threaded rod (223/224), or drive shaft, mating with the nut rotating to move said spindle or threaded rod in a lengthwise direction (see column 20 lines 23-33)
- 5) a piston and cylinder assembly (20) as well as a pressing plunger mounted on said piston rod (see column 4 lines 42-58).

Bolin, however, is silent regarding the use of an electric motor to rotate the spindle. Mann, on the other hand, does teach the use of an electric motor (66/108) to have rotary output to a spindle (67 Figure 4) with any gearbox and/or direction changer (see column 5 lines 11-14/column 7 line 30). Based on this teaching and the clear intent of the primary reference's disclosure for there to be a mechanism for rotating shaft 250, it would have been obvious to one of ordinary skill in the art to use an electric motor as taught by Mann for its known purpose in the art, rotary output. One of ordinary skill at the time of invention would have obviously used the teachings of Mann for an electric motor to move a drive shaft connected to said electric motor through rotary output to move a threaded spindle in a lengthwise or vertical direction.

3. Regarding claim 17, Mann discloses the use of a coupling device (192) connecting a rotary output (190) to a threaded screw (194) connected to a nut (196) (see column 10 lines 57-64). One of ordinary skill in the art at the time of invention would have found it obvious to use said coupling means to ensure proper fitting of

gearing mechanism as well as to buffer the toothed gearing mechanisms to retard conduction due to heat.

4. Regarding claims 18-19, Bolin discloses a coaxially threaded spindle (223/224), with said spindle having a free end (therebelow 240 Figure 2) with a concentric space (240) which receives said free end (see column 20 lines 2-4).

5. Regarding claims 20-22, Bolin discloses having a pressing plunger holder, as stated above, with a traverse, or threaded block (234), attached to a threaded spindle with said plunger holder being mounted on said traverse (see Figure 2). Having a plurality of the same parts or a mere duplication of parts has no patentable significance unless a new and unexpected result is produced. See MPEP 2144.04, *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). It would have been obvious to one of ordinary skill in art at the time the invention was made to have a plurality of holders with traverse(s) to optimize the production capacity of the plunger mechanism.

6. Regarding claims 23-25, Bolin discloses having a receiver (180) of a guide ring and a longitudinally divided split ring (34), with the receiver being mounted on the aforesaid piston, with pressing plunger being coupled to said receiver (180) with a support cylinder (20) mounted on the movable housing (see Figure 2/3). In another embodiment, a groove (184) of the guide ring (180) is mounted on the piston (see Figure 4). With respect to claim 24, having a plurality of the same parts or a mere duplication of parts has no patentable significance unless a new and unexpected result is produced. In this case, reciting "a support cylinder mounted on said movable housing, said split ring being radially supported by said support cylinder" a second time

constitutes duplication of parts. See MPEP 2144.04, *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). It would have been obvious to one of ordinary skill in the art at the time of invention to have a receiver and a split ring being supported by a support cylinder to have more controllable movement of the plunger mechanism.

7. Regarding claims 26 and 31, Bolin is silent on having a means for determining pressing plunger position. Mann, however, suggests having a circuit (156) to determine position (see column 9 lines 37-49). Bolin suggests having a displacement pick-up, or flange plate (220) on said movable housing (214 which is on 64). It would have been obvious to combine the teachings of the aforementioned references to digitally control the pressing plunger movement with structural members of the moving housing to optimize positioning of said plunger mechanism. One of ordinary skill would have appreciated having the aforementioned drive unit used as an actuating means that cooperates with the displacement pick-up, or flange plate, for determining plunger height or position.

8. Regarding claims 27-30, Mann discloses the use of a pin (29) in Figure 7. It would have been obvious to one of ordinary skill in the art to use this pin (29) to mount/mate into an orifice of the plunger holder to guide axial motion of said piston on the plunger mechanism

9. Regarding claims 32-36, having a plurality of the same parts or a mere duplication of parts has no patentable significance unless a new and unexpected result is produced. See MPEP 2144.04; *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). In this case, having a second drive unit which parallels the first drive unit of

actuating means, is not patentable without proof of unexpected results. It would have been obvious to one of ordinary skill at the time of invention to duplicate drive units with appropriate actuating means to drive the spindle or drive shaft in a more controlled manner.

10. Regarding claim 37, Mann teaches the use of a worm (118) gear as a drive shaft or shaft means (see column 7 lines 30-39). As taught by Mann, it would have been obvious at the time of invention to incorporate such a means to drive the spindle of the primary reference.

11. Regarding claims 38 and 39, Mann further teaches the use of a clamping structure of the releasing by rotation of an engageable head (see column 9 lines 5-25). As taught by Mann, it would have been obvious to one of ordinary skill at the time of invention to use such a clamping structure to fix the position of the housing(s) relative to each other as well as the support cylinder.

12. Regarding claims 41 and 42, Bolin discloses a guide rod(s) (274), or standpipe, with bushings (270), or connectors, mounted with guide rod(s) on movable housing cooperating with said rods for guiding motion.

13. Regarding claims 43-46, Bolin discloses the use of pressurized air in a pipe or passageway (108) to cool. Bolin further discloses the usage of a passageway (93) to provide cooling air (see column 18 lines 5-37). One of ordinary skill in the art would have appreciated using a pipe or passageway to cool an apparatus, or parts thereof, that absorb a great deal of heat energy. Thus, based upon the disclosure of Bolin, it would have been obvious to one of ordinary skill in the art at the time of invention to

determine an arrangement of cooling air through passageways or compressed cooling air through passageways as a means to cool parts of the pressing plunger mechanism, or apparatus. In this instance, unless applicant can reasonably show that the operation of the device would prove to be significantly modified without the specific pipes for providing cooling air, the cooling pipes of claims 43-46 read on Bolin's passageways/pipes— *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 2225898 drawn a hydraulic machine for molding glass articles

US 1976239 drawn to a glassware forming machine

US 1689975 drawn to a glass forming machine

US 1609691 drawn to a glass working apparatus

US 6397635 drawn to a plunger mechanism for the pressing of gobs of molten glass

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DeMaris R. Wilson whose telephone number is 571.272.6377. The examiner can normally be reached on 9-5 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571.272.1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DeMaris R. Wilson  
Examiner  
Art Unit 1731

DRW   
4/18/2007

  
STEVEN P. GRIFFIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700